

### **REMARKS**

In the Final Office Action, the Examiner rejected claims 1-20. All claims are believed to be patentable in their current form, and Applicants respectfully request reconsideration and allowance of all pending claims in view of the following remarks.

#### **Rejections Under 35 U.S.C. § 102**

In the Final Office Action, the Examiner rejected claims 1-9 under 35 U.S.C. § 102(b) as anticipated by Scott et al., U.S. Patent No. 5,953,340 (hereinafter “Scott”). In addition, Examiner also rejected claims 10, 11, and 13-20 under 35 U.S.C. § 102(a) as anticipated by Matteson et al., U.S. Patent No. 7,164,684 (hereinafter “Matteson”). Applicants respectfully traverse this rejection.

Anticipation under Section 102 can be found only if a single reference shows exactly what is claimed. *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 227 U.S.P.Q. 773 (Fed. Cir. 1985). For a prior art reference to anticipate under Section 102, every element of the claimed invention must be identically shown in a single reference. *In re Bond*, 910 F.2d 831, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990). To maintain a proper rejection under Section 102, a single reference must teach each and every limitation of the rejected claim. *Atlas Powder v. E.I. du Pont*, 750 F.2d 1569 (Fed. Cir. 1984). The prior art reference also must show the *identical* invention “*in as complete detail as contained in the ... claim*” to support a *prima facie* case of anticipation. *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 U.S.P.Q. 2d 1913, 1920 (Fed. Cir. 1989) (emphasis added). Accordingly, Applicants need only point to a single element not found in the cited reference to demonstrate that the cited reference fails to anticipate the claimed subject matter.

#### ***Omitted Features of Independent Claim 1***

Scott fails to anticipate all elements of independent claim 1. Independent claim 1 recites, *inter alia*, “a first portion connectable to a first point and a second point on the bi-

directional communication network, said *first portion being configured to manage collisions* among a first set of messages transmittable from said first point to said second point; and a second portion connectable to said first point and said second point, said *second portion being configured to transmit free of collision management* a second set of messages transmittable from said second point to said first point.” (Emphasis added.)

Scott describes a system that includes an adaptive networking device 151 including connector ports 154 capable of interfacing between data devices in a first domain, e.g., in a switch mode using an Ethernet 10Base-T data transmission protocol, and a second domain, e.g., in a repeater mode using an Ethernet 100Base-T data transmission protocol. *See* Scott, FIG. 4; col. 7, line 64 – col. 8, line 3; col. 8, lines 27-29 and 43-45; and col. 9, lines 10-15. The connector ports are coupled to interface circuits that act to couple each connector port to *either* the switch module *or* the repeater module. That is, transferring *either* at 10 Mbps *or* 100 Mbps, depending on the protocol of the associated data device or network component connected to the respective data port. *See* Scott, col. 9, lines 28-30 and 50-55. Scott further describes a converter 174 that is used to transfer data from a switch module (in the 10 Mbps domain), to a repeater module (in the 100 Mbps domain). *See* Scott, col. 10, lines 25-35. Therefore, data that is transmitted from a connector port 154 attached to a device in the first domain is transmitted to a connector port 154 attached to a device in the second domain via the converter. *See id.*, col. 10, lines 36-47.

The Examiner characterized the switch module 172 of Scott as the recited first portion, the converter 174 of Scott as the recited first point, and the interface circuits 160 of Scott as recited the second point of independent claim 1. *See* Final Office Action, page 2, lines 14-17. The Examiner further suggested the switch module 172 is configured to manage collisions among a first set of messages transmittable from the converter 174 to the interface circuits 160, citing column 10, lines 2-4 and 47-58 of Scott. *See id.*, lines 17-20. Additionally, the Examiner characterized the repeater module 176 of Scott as the

second recited portion, connectable to said first point (converter 174) and said second point (interface circuits 160), the repeater module 176 being configured to transmit free of collision management a second set of messages transmittable from said second point (interface circuits 160) to said first point (converter 174). *See* Final Office Action, page 2, line 18 – page 3, line 4. However, in contrast to the assertion by the Examiner, neither the cited sections, nor the remainder of Scott, describe a *first portion being configured to manage collisions* among a first set of messages transmittable from a first point to a second point; and a *second portion being configured to transmit free of collision management* a second set of messages transmittable from the second point to the first point.

Indeed, with regard to the *first portion being configured to manage collisions* among a first set of messages transmittable from a first point to a second point, the Examiner stated that Scott describes “the converter transmits the data to the switch module, where the switch module filters the data packets *to avoid collisions*.” Final Office Action, page 2, lines 19-20. (Emphasis added.) The Examiner has apparently misread Scott. Scott simply *does not* describe filtering data packets *to avoid collisions*, as claimed by the Examiner. Instead, Scott clearly sets forth that the switch module 172 receives data packets from the data devices or networks 18, 20, or 22 (via ports 154 connected to the interface circuits 160). *See* Scott, FIG. 6; col. 9, lines 60-66. The switch module 172 may identify each packet and transmit the packet to a corresponding port 154. *See* Scott, col. 9, line 66 – col. 10, line 2. After identifying the data packets, the switch module 172 may drop packets, *not* as part of collision management, but rather if the data packets are identified as being sent between two devices of a network coupled to the same port 154. *See* Scott, col. 10, lines 2-4. Indeed, this filtering function of the switch module 172 of Scott is further described as a repeater module that “learns” to drop packets not intended for devices in a given domain as it is utilized (thus isolating the domains 14 and 16 from extraneous data traffic), to promote the efficiency of the system of Scott. *See* Scott, col. 10, line 59 – col. 11, line 11. However, there is no suggestion

that this dropping of packets is “to avoid collisions,” as suggested by the Examiner, and further as recited in independent claim 1. Accordingly, Scott fails to describe all elements of independent claim 1.

Furthermore, independent claim 1 recites a *first portion configured to manage collisions* among a first set of messages transmittable from the first point to the second point. Even if, *arguendo*, the Examiner were correct in the assertion that filtering data packets transmitted from devices sharing a common port describes collision management, these packets are received by the switch module 172 (read by the Examiner as analogous to the recited first portion) from the interface circuits 160 (read by the Examiner as analogous to the recited second point) before being transmitted to a converter 174 (read by the Examiner as analogous to the recited first point). Thus, the filtering of the packets occurs from packets transmitted from a second point (interface circuits 160) to a first point (converter 174) via the first portion (switch module 172).

In contrast, claim 1 clearly recites a first portion being configured to manage collisions among a first set of messages transmittable *from the first point to the second point*. Accordingly, since the system of Scott as applied by the Examiner, at best, describes filtering from a second point to a first point, it cannot be read to describe the opposite mechanism, namely a first portion being configured to manage collisions among a first set of messages transmittable *from a first point to a second point*, as clearly recited in claim 1. Accordingly, Scott fails to describe all elements of independent claim 1.

As such, for at least the reasons set forth above, Scott fails to disclose all limitations of independent claim 1, and, therefore, cannot anticipate the independent claim 1 under Section 102. Accordingly, Applicants respectfully request withdrawal of the rejection and allowance of independent claim 1, as well as all claims depending therefrom.

***Omitted Features of Independent Claim 10***

Matteson fails to anticipate all elements of independent claim 10. Independent claim 10 recites, *inter alia*, “a *first plurality of connections* for connecting said hub portion to a plurality of first points on a bi-directional communication network and to a second point on the bi-directional communication network for transmitting messages *from the second point to the first points*; and a *second plurality of connections* for connecting said switch portion to said plurality of first points and to said second point for transmitting messages *from the same first points to the second point*.” (Emphasis added.)

The Examiner relied upon a single figure, FIG. 5, and focused on a specific passage from Matteson, col. 6, lines 9-32, to support the rejection of claim 10. *See* Final Office Action, page 4 line 16 – page 5, line 16. However, the Examiner has failed to reject all elements of independent claim 10.

First, independent claim 10 recites, “a *first plurality of connections* for connecting said hub portion to a plurality of first points on a bi-directional communication network...and a *second plurality of connections* for connecting said switch portion to said plurality of first points.” (Emphasis added.) As can be seen at least in FIG. 5 of Matteson, connection ports 36 are utilized to connect the connectivity device 34 to a network. *See* Matteson, col. 2, lines 39-44. Indeed, Matteson specifically describes the connectivity device 34 as providing a network with a single point of connect via communication port 36. *See* Matteson, col. 5, lines 3-7 and 61-65 and col. 6, lines 17-19. Furthermore, connection ports 36 are utilized for connection to *both* the hub portion and the switch portion of communication device 34. *See* Matteson, FIG. 5. Accordingly, since Matteson describes a single point of contact to a network via communication ports 36 utilized by *both* a hub and a switch portion of the communication device, Matteson cannot be read to describe a *first plurality of connections* for connecting a hub portion to a plurality of first points on a bi-directional communication network and a *second plurality of connections* for connecting a switch portion to the plurality of first points, as

recited in independent claim 10, since the connections described by Matteson are the same. Accordingly, Matteson fails to describe all elements of independent claim 10.

Second, independent claim 10 recites, “connecting said hub portion to a plurality of first points on a bi-directional communication network and to a second point on the bi-directional communication network ...connecting said switch portion to said plurality of first points and to said second point for transmitting messages from *the same first points to the second point.*” (Emphasis added.) The Examiner argued that the “first points” on the bi-directional network recited in independent claim 10 are a plurality of “nodes” with no reference numeral given and no citation to any section of Matteson referring to nodes. For the purposes of this response, it assumed that the Examiner intends the “nodes” to be points on a network external to the connectivity device 34. However, Applicants respectfully request that the Examiner clarify this portion of the rejection, else the Examiner has not met the burden of showing all elements are found in a single reference, as required to maintain a § 102 rejection.

Additionally, the Examiner argued “second point” recited in claim 10 was described in Matteson as the CPU 150 of FIG. 5. Final Office Action, page 5, lines 1-4. Even if this were to be accurate, the Matteson reference still fails to anticipate all elements of claim 10. Claim 10 specifically recites transmitting messages from *the same first points to the second point.* However, the CPU of Matteson is not described as receiving transmissions from the network. Indeed, Matteson describes the CPU 150 as communicating with the storage device 154, a hub module 158, switch 162, repeater 166, router 172, and port 36, *to execute functions* of connectivity device 34. See Matteson, col. 6, lines 9-17. (Emphasis added.) Accordingly, the CPU 150 of Matteson acts as a control device for operating the communication devices of the connectivity device 34 of Matteson, *not* as a network device itself. As such, the CPU 150 of Matteson cannot be read as receiving messages transmitted from first points on a bi-directional communication network, as recited in independent claim 10.

Indeed, the Examiner is unable to show that the CPU 150 of Matteson receives message transmissions from first points on a bi-directional communication network, since the Examiner explicitly stated that “it is *implied* that there are message transmissions from the plurality of nodes to the CPU.” See Final Office Action, page 5, lines 12-13. The Examiner is reminded that all elements must be *shown* in a single reference, not *implied from* a single reference, to maintain a § 102 rejection. Because Matteson fails to describe transmitting messages from *the same first points* on a bi-directional communication network *to the second point*, as recited in independent claim 10, Matteson fails to describe all elements of independent claim 10.

As such, Matteson fails to disclose all limitations of independent claim 10, and, therefore, cannot anticipate independent claim 10 under Section 102. Accordingly, Applicants respectfully request withdrawal of the rejection and allowance of independent claim 10, as well as all claims depending therefrom.

***Omitted Features of Independent Claim 18***

Matteson fails to anticipate all elements of independent claim 18. Independent claim 18 recites, *inter alia*, “transmitting a second message from *said single second point to each of the same said plurality of first points* through a hub portion of said communication device.” (Emphasis added.)

Similar to the rejection of claim 10 discussed above, claim 18 was argued as unpatentable over Matteson. Claim 18 recites a method having steps essentially similar to the connections recited in claim 10. Thus, the arguments set forth above with respect to claim 10 may be applied to claim 18. Accordingly, and for similar reasoning as set forth above with respect to claim 10, claim 18 and the claims depending therefrom are believed to be clearly patentable over Matteson. Reconsideration and allowance of claim 18 and its dependent claims are respectfully requested.

**Claim Rejections under 35 U.S.C. § 103(a)**

In the Final Office Action, the Examiner rejected claim 12 under 35 U.S.C. § 103(a) as unpatentable over Matteson in view of Kalkunte et al., U.S. Publication No. 2002/0034187 (hereinafter “Kalkunte”).

Applicants respectfully traverse this rejection. The burden of establishing a *prima facie* case of obviousness falls on the Examiner. *Ex parte Wolters and Kuypers*, 214 U.S.P.Q. 735 (B.P.A.I. 1979). To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 180 U.S.P.Q. 580 (C.C.P.A. 1974). However, it is not enough to show that all the elements exist in the prior art since a claimed invention composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art. *KSR International Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1741 (2007). It is important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does. *Id.* Specifically, there must be some articulated reasoning with a rational underpinning to support a conclusion of obviousness; a conclusory statement will not suffice. *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006). Indeed, the factual inquiry determining whether to combine references must be thorough and searching, and it must be based on *objective evidence of record*. *In re Lee*, 61 U.S.P.Q.2d 1430, 1436 (Fed. Cir. 2002).

***Omitted Features of claim 12***

Kalkunte appears to be directed to a switch configured to block packets from being transmitted through designated ports, whereby the switch has port bitmap generator configured to obtain a port bitmap and a table is configured to store a block mask indicating which port the packet should not be transmitted. However, Kalkunte fails to cure the deficiencies of independent claim 10, from which dependent claim 12 depends.

As such, based at least upon its dependency from claim 10, Applicants assert that claim 12 is allowable and respectfully request withdrawal of the rejection of claim 12.

**Conclusion**

In view of the remarks and amendments set forth above, Applicants respectfully request allowance of the pending claims. If the Examiner believes that a telephonic interview will help speed this application toward issuance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

Date: September 25, 2008

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